ELSEVIER

Volume 387, Numbers 1–2, 2 May 1995

JOURNAL OF ELECTROANALYTICAL CHEMISTRY

Contents

Regular papers

A modelling approach to the characterization of the limiting polarization behaviour of gas diffusion electrodes
E.A. Ticianelli (São Carlos, Brazil) 1

Electrochemically-controlled waveguide-coupled surface plasmon sensing
C.R. Lavers, R.D. Harris, S. Hao, J.S. Wilkinson (Southampton, UK), K. O'Dwyer, M. Brust and D.J. Schiffrin (Liverpool, UK) 11

Frequency–temperature coefficient of an electrode-separated piezoelectric sensor in the liquid phase
Y. Xu, D. Shen, Q. Xie, L. Nie and S. Yao (Changsha, People's Republic of China) 23

Generalization of transient equations due to the growth of hemispheroids
M.Y. Abyaneh (Coventry, UK) 29

Retention characteristics of polypyrrole as a stationary phase for the electrochemically modulated liquid chromatographic (EMLC) separations of dansyl amino acids
R.S. Deinhammer, M.D. Porter (Ames, IA, USA) and K. Shimazu (Sapporo, Japan) 35

Conductivity of tetramethylammonium fluoride tetrahydrate
M. Opallo, A. Tymosiak and Z. Borkowska (Warsaw, Poland) 47

Investigation of the influence of the electrodeposition potential on the optical, photoelectrochemical and structural properties of as-deposited CdTe
A. Kampmann, P. Cowache, J. Vedel and D. Lincot (Paris, France) 53

Solvation potentials and transport properties in 1,4-dioxane + water mixtures
R.E. Gregory and P.T. McTigue (Parkville, Australia) 65

Electrochemical intercalation of cations into an amorphous WO_3 film and accompanying changes in mass and surface properties
H. Inaba, M. Iwaku, T. Tatsuma and N. Oyama (Tokyo, Japan) 71

Analysis of charge transport impedance in the reduction of thin films of conducting polyaniline in aqueous trichloroacetic acid solutions
M. Grzeszczuk and P. Poks (Wrocław, Poland) 79

Characterization of carbohydrate oxidation at copper electrodes
M.Z. Luo and R.P. Baldwin (Louisville, KY, USA) 87

A study of the reduction process of anodic PbO_2 film on Pb in sulfuric acid solution
W.-B. Cai, Y.-Q. Wan, H.-T. Liu and W.-F. Zhou (Shanghai, China) 95

Electrochemical carbonylation of organoiron methyl complex: a study of reaction intermediates
C. Amatore, M. Bayachou, J.-N. Verpeaux (Paris, France), L. Pospíšil and J. Fiedler (Prague, Czech Republic) 101

Short communications

Ion modulated electroactivity in thin-film polymers derived from bipyridyl and phenanthroline complexes of iron
L.A. Lyon, M.A. Ratner and J.T. Hupp (Evanston, IL, USA) 109

The effects of anions on the underpotential deposition of Tl on Pt(111): a voltammetric study
D.R. Wheeler, J.X. Wang and R.R. Adžić (Upton, NY, USA) 115

On the possibility of verifying the new entropy equation
A.Y. Gokhshtein (Moscow, Russia) 121

Cyclic voltammetric and spectrophotometric study of microcrystalline chlorophyll *a* electrodeposited on the ITO optically transparent electrode
E.P. Suponeva (Moscow, Russia), S. Hotchandani (Trois-Rivieres, Canada), B.A. Kisselev (Moscow, Russia) and C. Arbour (Trois-Rivieres, Canada) 123

Preliminary notes

The electrochemical reduction of CO_2 to oxalate at a Pt electrode immersed in acetonitrile and coated with polyvinylalcohol/$[Ni(dppm)_2Cl_2]$
P.A. Christensen (Newcastle upon Tyne, UK) and S.J. Higgins (Liverpool, UK) 127

Electrochemical recognition of ammonium and alkali metal cations with calix[4]arenediquinone
D. Choi, T.D. Chung, S.K. Kang, S.K. Lee, T. Kim, S.-K. Chang and H. Kim (Seoul, Korea) 133

In-situ X-ray absorption spectroscopic study of underpotential deposition of Rb^+ on carbon-supported Pt in aqueous solution
H. Yoshitake, O. Yamazaki and K.-i. Ota (Yokohama, Japan) 135

Peptide derivatised poly(pyrrole) modified electrodes with built-in ion-exchange functions
S.K. Ibrahim, C.J. Pickett and C. Sudbrake (Brighton, UK) 139

Electrochemical synthesis of urea on reduction of carbon dioxide with nitrate and nitrite ions using Cu-loaded gas-diffusion electrode
M. Shibata, K. Yoshida and N. Furuya (Kofu, Japan). 143

Corrigendum 147

Errata 149

Book reviews 151

Announcement 153

Author index 155

Subject index 157